

Green Garden News

May Tips

Flowers

- Annuals to plant include celosia, coleus, crossandra, gaillardia, geranium, hollyhock, impatiens, kalanchoe, marigold, nicotiana, ornamental pepper, pentas, phlox, portulaca, salvia, torenia, verbena, vinca and zinnia.
- Fertilize annual and perennial flowerbeds. Choose a product that contains nitrogen and potassium, but little or no phosphorus for this purpose.
- Rejuvenate houseplants. Take them outdoors and inspect for spider mites and mealy bugs. Shift pot bound specimens to a size larger pot.
- Set out caladium bulbs in prepared beds. Plant them 18 inches apart and 2 inches deep.
- Control black spot on roses by applying fungicides on a regular basis.
- Seed sunflowers. Sunflowers are easy to grow in a sunny spot. Look for newer, dwarf varieties.

Trees and Shrubs

- Finish pruning spring flowering shrubs such as azaleas, spiraeas, camellias and forsythia.
- Water newly planted shrubs and trees frequently until they are well established. Smaller shrubs require about 3 months of special care as

new roots are becoming established, while large shrubs and trees require 6 months to a year.

- Watch for these pests on ornamentals and control as necessary: Spider mites on Japanese hollies, lacebugs on azaleas and pyracantha, scales on camellias and hollies, whiteflies on ligustrum and gardenias
- Mature palms should receive a complete granular fertilizer formulated for palms ("palm special"). Apply uniformly to the entire ornamental planting area (or at least the entire palm canopy area) at a rate of 1.5 lbs. /100 sq. ft. four times per year during the growing season.

Fruits and Nuts

- Fertilize citrus with a special "citrus fertilizer" like a 10-10-10. Be sure it contains about 1.6% magnesium, about 0.5% manganese and small amount of copper and boron.

Vegetable Garden

- Vegetables that can be planted outdoors include eggplant, lima beans, okra, southern peas, and sweet potatoes.
- On sandy sites, vegetables will require several light, supplemental applications of fertilizer during the sea-

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Sooty Mold

Understanding how a problem starts can save time and effort in trying to control it. That's the case with sooty mold. The name is pretty descriptive. If you have gardenias or crape myrtles, you've probably seen it.

Sooty mold is a black-colored growth that can completely cover the leaves of a plant. This fungus is basically a cosmetic problem; however, it can reduce the amount of sunlight a plant gets, causing some minor growth difficulties. The bottom line is that it just makes a plant look ugly.

This fungus does not attack the plant itself. It feeds on a material called honeydew. Honeydew is excess, sugary sap that is excreted by aphids and whiteflies. The way to control sooty mold is to control these insects. This may sound simple enough but sometimes it can be a challenge to control these little soft-bodied pests.

Unless you're looking close, it can be difficult to see these insects on a plant. You can't depend on seeing portions of leaves eaten away because aphids and whiteflies don't have the ability to chew. They have mouth parts similar to mosquitoes that are designed to pierce the plant tissue and suck out the plant juices. Their size also make them difficult to see. The largest species are not more than a quarter inch in length.

There are more visible signs that indicate these pests are present. First, look for new leaves that are malformed or distorted. Aphids and whiteflies prefer to feed on new, tender leaves; it is easier for them to insert their mouths into the new growth. Second, look for the sticky honeydew. Third, shake the plant. Whiteflies will quickly fly away from and back onto a plant when disturbed. Fourth, look for ants running up and down the trunk and stems of the plant. Ants love honeydew. They feed on it. Usually when you

see ants crawling all over okra plants, or various trees and shrubs, they are looking for aphids producing honeydew. If you see any of these signs, inspect the underside of leaves for aphids or whiteflies.

Plants located under large trees many times will have problems with sooty mold. Pecan trees commonly cause the foliage of plants underneath them to have sooty mold problems. There is not a lot that can be done in this situation to control the

sooty mold because the aphids are feeding in the tree and the honeydew is dropping onto the plants under the tree. It is not practical or economical to spray a large tree to control aphids.

Aphids and whiteflies can be controlled on smaller plants like crape myrtle and gardenia in a number of ways. If the infestation is small, you can simply spray them off the plants with a heavy stream of water from a garden hose. With larger

populations, you may need to use an insecticide. Insecticidal soap, malathion, diazinon and acephate can be used, but spray to get good coverage underneath the foliage and always follow label directions. These insects can also be held in check in nature by adverse weather conditions including low temperatures and heavy rains. There also are a number of insects that eat aphids and whiteflies. The most important one is the lady beetle.

The way to control sooty mold is to stop it before it gets started and the way to do that is to control the aphid and the whitefly.

- by Larry Williams, Extension Horticulture Agent, UF/UFAS Okaloosa County Cooperative Extension Service



Pollinating Squash

When growing squash in your garden, dark green, vigorously growing plants and lots of pretty, yellow flowers are good signs, but certainly not sure-fire reasons to lick your chops or get out the cookbook. Actually, those healthy-looking plants and showy flowers may be signaling a time for you to literally get "as busy as a bee."

Squash, like all members of the cucumber (Cucurbit) family, have separate male and female flowers on the same plant. Consequently, for fruit set to occur, pollen must be transferred from the male to the female flower(s). This process is termed - pollination - a function normally carried out by insects, most often honeybees. Without pollination, those bright yellow flowers will never turn into anything for the dinner table, unless you are into eating fried squash blossoms (which are supposed to be good - but then some folks will eat just about anything)!

The primary reason the numerous yellow flowers may yield little, if any, squash is an absence of honeybees and the resulting lack of pollination. This is especially true in urban/suburban areas where fortunately (for both us and them), honeybees seldom choose to build their hives.

An absence of honeybees is a real problem, but one that can easily be overcome - if you are willing to take their place! You can play "bee" by transferring the pollen yourself - from the male to the female flowers. It's simple, easy and almost always guaranteed to result in plenty of garden-fresh squash for your dinner table.



Before we get into the art of "playing bee," you obviously need to be able to tell the difference between the male and female flowers. The female squash flowers are those that have a very distinct swelling or enlargement directly behind the petals which is actually the small, immature squash fruit. The male flowers lack the immature fruit and are simply attached to the plant by a long, slender stem - or peduncle if you're a botanist.

Playing bee can be accomplished in several different ways.

You can use a cotton swab or a small paint brush to transfer the pollen from the male to the female flower(s). Simply dab either the swab or brush into the center of a fully open male flower, making sure some of the yellow pollen grains adhere to the cotton or bristles. Then, transfer the pollen by dabbing the swab or brush into the center of an open female flower. In most cases there is enough pollen in one male flower to pollinate three to five female flowers.

A less sophisticated, but just as effective, method when playing "bee" is to simply pull off an open male flower, remove or peel back the flower petals and then dab its pollen-laden center into the center of an open female flower. Make sure the center of the male flower (anther) makes good contact with the center (stigma) of the female flower. Since this is a much less pollen-efficient technique, use one male flower to pollinate no more than three female flowers.

Just a few more important considerations regarding squash and pollination are:

- First of all, both male and female squash flowers are open one day and one day only - they open during early morning and generally close by mid afternoon.
- Pollination, either by bee or you, is best accomplished by mid-morning.
- The time from pollination to harvest is much shorter than most folks realize. Nearly all types of summer squash (zucchini, crookneck, etc.) will be ready for your dinner table about 3 to 5 days after pollination. Winter squash (acorn, butternut, etc.) take considerably longer.

If you find reason to treat your squash with pesticides to control diseases or insects, do so during late afternoon. Spraying or dusting at this time will greatly reduce the chance of harming pollinating honey bees.

This spring don't let an absence of honeybees, for whatever reason, keep you from enjoying the great taste of home-grown, garden-fresh squash. Arm yourself with a cotton swab, small brush or a male flower - and pollinate away!

-By Dr. Sam Cotner, Extension Horticulturist, Retired, Texas A&M University

Sudden Oak Death

You've probably heard or read a little about sudden oak death (SOD) in the news recently. Is there a possibility you could have SOD in your home landscape? Not likely. From what we know so far of the disease, it's very unlikely that any north Florida landscape would have a case of SOD at this point.

My brother recently told me about a sermon he heard with the theme, "Wait to Worry", urging the listeners not to worry about things prematurely. I would encourage home gardeners to consider this new plant disease in that perspective. At this point, let the authorities and the nurseries do the worrying.

So far SOD, which can infect a number of types of woody plants, has only been found on a very few individual nursery plants in Florida. All of these plants came from one wholesale nursery in Azusa, California. Florida Department of Agriculture (FDACS) acted quickly to stop plant shipments from California into Florida following the news that SOD had been found in the California nursery. FDACS also stopped sales in Florida retail nurseries of plants that had already come from the California nursery where the disease was found as well as from other locations owned by that California nursery chain.

Plant samples were taken from the retail nurseries in Florida that were customers of the Azusa, California grower, Monrovia Growers. Only samples from three Florida nurseries have tested positive for *Phytophthora ramorum*, the fungus that causes SOD. Two plants were found at one retail nursery in Tallahassee and those individual plants, and a generous buffer of plants around them at the nursery, were destroyed offsite by burial six feet below ground.

While SOD may have the potential to be a very serious landscape plant disease in our area, at this point we, as gardeners, need to remain calm. Even though SOD has been found on these three nursery plant samples in Florida, the disease has not been found anywhere in a landscape situation outside of California and Oregon. Experts don't even know if the disease could thrive and spread in our climate. The pathogen appears to have a strict re-

quirement for cool, moist environmental conditions for successful infection. Many unanswered questions remain about this disease. The attitude of FDACS and the cooperating nurseries at this point has been one of extreme caution and "better safe than sorry". Though it has been a financial strain on all nurseries involved, FDACS has been most complimentary of the cooperation the nurseries are giving in stopping the potential spread of this disease and safeguarding our landscapes.

Should you stop buying plants from nurseries during this time because of the possibility of buying a plant with SOD? My advice to gardeners is to continue life as normal. The authorities and the nurseries are doing everything possible to safeguard us right now. At the time I'm writing this, nurseries still can't sell any of their plants from Monrovia Growers. Plant inspectors, and nursery managers alike, are keeping an extremely close eye on the Monrovia plants in the retail nurseries for any more symptoms of the disease. No one wants this disease to get out. So you can feel fairly confident that plants you do buy at a nursery right now have been under much more scrutiny than in normal times. Hopefully, before too much longer, the Monrovia plants in the retail nurseries will prove to be disease-free and can be offered for sale again. And, hopefully, Monrovia will be able to resume shipping plants to us again soon.

Meanwhile, don't jump to the conclusion that every spot you see on your oaks, camellias, or other woody plant in your landscape is from SOD. The chances of this fungus having already escaped into our landscapes and infected your plants are very, very slim. Still, if you want to worry, the University of Florida has published fact sheet PP197, "Sudden Oak Death", which covers symptoms and biology of the disease. It's available online at <http://edis.ifas.ufl.edu/pp118>.

To get even more details, visit FDACS's website at www.doacs.state.fl.us/pi/enpp/pathology/sudoakdeath.html

If, after learning about the disease and looking at the photos of the symptoms, you really think you may have a case of SOD, you can contact the

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Questions and Answers

Q: My azaleas have an odd looking growth on the leaves. What can I spray them with?

A: You probably have something called **azalea leaf gall**. Weather conditions were just right for its development. A fungus causes azalea leaf gall. This fungus causes pale green or whitish galls, or tumor-like growths, to form on the leaves. Leaves often become thickened, curled and deformed. It tends to affect the young leaves. The good news is that it will not kill the azaleas, but will make it look very unsightly when the condition is severe.



If you find leaves with galls, handpick and destroy affected leaves. Continue to scout your azaleas once a week to look for signs of this disease. If the galls are not removed from the plant, chances are that it will be worse next year. It is important to destroy the affected leaves and not discard them underneath the

shrub itself. As long as new growth appears, azaleas are susceptible to leaf gall.

Sometimes it may not be practical to pinch off all the affected leaves. In this situation, a fungicide may be helpful. A fungicide containing triadimefon (Bayleton) may help clear up the problem if sprayed every 10-14 days beginning immediately after bloom and continuing until new growth ends.

Q: One area in my lawn is covered with a slick, green film. When the surface dries it turns black. What could this be?

A: Several species of algae can cause this condition. They grow in areas of a lawn that remains moist at the surface for extended periods. Consider reducing the frequency of irrigation in this area.

Sudden Oak Disease (Continued)

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FDACS toll-free helpline at (888) 397-1517. If you recently bought a Monrovia Growers plant (their name is printed on each pot and tag with the pot), consumers are asked not to remove the plants from your yard or return them to the retail nursery where you bought them. If you think the plant has SOD symptoms, instead contact the helpline for additional assistance.

-David W. Marshall, directs environmental education programs with the UF/IFAS Extension in Leon County



Photo provided by Plant Management Network: Vascular discoloration of Rhododendron by the fungus that causes sudden oak death, Phytophthora ramorum.

May Tips

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son. Choose a product that contains nitrogen and potassium, but little or no phosphorus for this purpose.

- Check for the following pests and control them if necessary:
 - * Tomato fruitworm
 - * Stinkbugs on vegetables
 - * Aphids on all new growth

Lawns

- Calibrate the lawn sprinkler system so that approximately ½ inch of water is applied at each irrigation. Contact your local Extension Service for specific instructions.
- Water lawns in the morning to help prevent disease problems.
- Check for the following lawn pests and control them if necessary:
 - * Spittlebugs in centipedegrass
 - * Chinch bugs in St. Augustine
 - * Sod webworm in all turf



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